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Case Docket No. 7343-2  
Date: December 28, 2006

Mail Stop Appeals - Patents  
COMMISSIONER OF PATENTS  
PO Box 1450  
Alexandria, VA 22313-1450

Re: Application of: Brandel et al  
Serial No.: 10/736,119  
Filed: December 15, 2003  
For: PATTERNED GLASS FIBER TEXTILE

Art Unit: 1771  
Examiner: PIZIALI, Andrew T..

Transmitted herewith is/are the following document(s) related to the above-identified application:

- ☐ Notice of Appeal  
☒ Appeal Brief  
☐ Request for Oral Hearing

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Attorney Docket No. JM 7343-2

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	
Lennart J. BRANDEL et al.	)	Group Art Unit: 1771
Application No.: 10/736,119	)	Examiner: Andrew T. PIZIALI
Filed: December 15, 2003	)	Confirmation No.: 3619
For: PATTERNED GLASS FIBER	)	
TEXTILE	)	

**APPEAL BRIEF**

**Mail Stop APPEAL BRIEF - PATENTS**  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This appeal is from the final Office Action mailed May 12, 2006, and the Advisory Action mailed July 18, 2006, rejecting claims 1-10, which are reproduced as the Claims Appendix of this brief.

12/29/2006 NHUYEN1 00000100 100625 10736119  
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I. Real Party in Interest

The present application is assigned to JOHNS MANVILLE INTERNATIONAL, INC., a corporation duly organized under and pursuant to the laws of the State of Delaware and having its principal place of business in Denver, Colorado, which is the real party in interest, and is the assignee of Application No. 10/736,119.

II. Related Appeals and Interferences

The Appellant's legal representative, or assignee, does not know of any other appeal or interferences which will affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 11-17 having previously been withdrawn, the final rejection of pending claims 1-10 is hereby appealed.

IV. Status of Amendments

No claim amendments were filed subsequent to final rejection.

V. Summary of Claimed Subject Matter

Independent Claim 1 is directed to a woven, patterned glass fiber textile fabric comprised of a glass fiber yarn with a titer of from 270 to 300 tex as the warp, and a glass fiber yarn having a titer ranging from 68 to 660 tex as the weft. (See, for example, Page 2, Lines 16-20 and 27-29, of the present specification).

VI. Grounds of Rejection to be Reviewed on Appeal

A. Claims 1-7, 9, and 10 were finally rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,337,104 ("Draxö") or 6,759,116 ("Edlund") in view of U.S. Patent No. 3,755,051 ("Stumpf").

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The final Office Action cites Draxö and Edlund as disclosing woven glass fiber textiles having warp yarns with a titer in the range of 139 to 142 tex, while acknowledging that neither Draxö nor Edlund discloses fabrics with a warp yarn having a titer of 270 to 300 tex as set forth in present claim 1. The final Office Action relies on Stumpf to supply a rationale for substantially increasing the titer of the warp yarns of the fabrics of Draxö and Edlund. Specifically, the final Office Action states that Stumpf "discloses that it is known in the wall covering art to vary the denier (tex) of a fabric based on the desired depth of pile or degree of loft of the loops and the desired appearance of the fabric (see entire document including the paragraph bridging columns 4 and 5 and column 11, lines 49-64)." (Page 3). The final Office Action argues that it would have been obvious, in the absence of unexpected results, to increase the titer of the warp yarn in the fabrics of Draxö and Edlund since, in effect, the titer is a result-effective variable.

B. Claim 8 was finally rejected under 35 U.S.C. § 103(a) as unpatentable over Draxö or Edlund in view of Stumpf as applied to claims 1-7, 9 and 10, and further in view of U.S. Patent No. 6,267,151 ("Moll").

The final Office Action cites Draxö and Edlund as disclosing a warp density of 3.15 to 3.4 threads/cm, while acknowledging that neither Draxö nor Edlund a warp density in the range of from about 6 to 10 threads/cm as set forth in present claim 8. The final Office Action relies on Moll as disclosing "that it is known in the wall covering art to use warp densities of between 4 and 10 threads/cm (column 1, lines 50-62)" and asserts that "it is understood by one of ordinary skill in the art that the warp density determines properties such as appearance and weavability." (Page 4). The final Office Action argues that it would have been obvious to vary the warp density in the fabrics of Draxö and Edlund since, in effect, the warp density is a result-effective variable.

C. Claims 1-7, 9, and 10 were finally rejected under 35 U.S.C. § 103(a) as unpatentable over Draxö or Edlund in view of U.S. Patent No. 5,292,578 ("Kölzer").

Alternatively, the final Office Action relies on Kölzer to supply a rationale for substantially increasing the titer of the warp yarns of the fabrics of Draxö and Edlund. Specifically, the final Office Action states that Kölzer "discloses that it is known in the glass fiber art to vary the tex of a woven fabric, such as from 34 to about 1000 tex (with 272 tex specifically mentioned), based on the desired load resistance (see entire document including

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the paragraph bridging columns 4 and 5)." (Page 5). Again, the final Office Action argues that it would have been obvious, in the absence of unexpected results, to increase the titer of the warp yarn in the fabrics of Draxö and Edlund since, in effect, the titer is a result-effective variable.

D. Claim 8 was finally rejected under 35 U.S.C. § 103(a) as unpatentable over Draxö or Edlund in view of Kölzer as applied to claims 1-7, 9 and 10, and further in view of Moll.

As noted above, the final Office Action relies on Moll as disclosing "that it is known in the wall covering art to use warp densities of between 4 and 10 threads/cm (column 1, lines 50-62)" (page 6), asserts that "it is understood by one of ordinary skill in the art that the warp density determines properties such as appearance and weavability", (page 6), and argues that it would have been obvious to vary the warp density in the fabrics of Draxö and Edlund since, in effect, the warp density is a result-effective variable.

## VII. Argument

Appellant respectfully disagrees with the rejections of claims 1-10 as unpatentable over Draxö or Edlund in view of Stumpf; Draxö or Edlund in view of Stumpf, and further in view of Moll; Draxö or Edlund in view of Kölzer; and Draxö or Edlund in view of Kölzer, and further in view of Moll. Therefore, reversal of these rejections is respectfully requested.

The present claims are broadly directed to a woven, patterned glass fiber textile composed of a glass fiber warp yarn of a titer of 270 to 300 tex and a glass fiber weft yarn of a titer of 68 to 660 tex. It has been discovered by the Applicants that a woven glass fiber fabric can be manufactured with a patterned weave, preferably on a Jacquard loom, if the warp and weft yarns have a titer within the ranges recited in the present claims. This is quite surprising since the prior art has taught that woven, patterned glass fiber fabrics can only be produced on a pattern-controlled Jacquard loom if the warp yarn density is tightly controlled to be in the range of 130 to 150 tex, preferably 139 to 142 tex. (See Moll at Column 1, Lines 20-30).

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A. The Rejection of Claims 1-7, 9, and 10 Under 35 U.S.C. § 103(a) as Unpatentable over Draxö or Edlund in View of Stumpf

As noted above, neither Draxö nor Edlund discloses or suggests woven glass textile fabrics prepared using warp yarns having a titer of 270-300 tex. Stumpf is directed to the preparation of high-loft nonwoven materials for use in preparing wall panels. The nonwoven materials are not prepared using a loom.

As noted in MPEP § 2141.01(a), "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992).

Stumpf has nothing to do with woven decorative fabrics but relates solely to laminated panels composed of a nonwoven fabric adhered to a backing material. The passages in Stumpf referred to in final Office Action (*i.e.*, the paragraph bridging columns 4 and 5 and column 11, lines 49-64) relate solely to the loft and other characteristics of nonwoven fabrics where individual fibers are bonded by adhesives. Nonwovens are completely different than the woven decorative glass fiber fabrics of Draxö and Edlund.

Accordingly, Applicants respectfully submit that as Stumpf is neither in the field of Applicants' endeavor nor reasonably pertinent to the particular problem with which the inventor was concerned (*i.e.*, *woven*, patterned glass fiber textiles which are aesthetically pleasing), Stumpf may not be relied on as a basis for rejection of Applicants' invention.

As noted in MPEP § 2142, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

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Applicants respectfully submit that those of ordinary skill in the art seeking to modify the woven fabrics of Draxö and Edlund would not have been motivated to look to the laminated panels containing nonwoven materials of Stumpf. Applicants further respectfully submit that there would not have been a reasonable expectation of success in so modifying the textiles of the primary references.

The argument in the final Office Action that it would have been obvious, in the absence of unexpected results, to increase the titer of the warp yarn in the fabrics of Draxö and Edlund since, in effect, the titer is a result-effective variable, is unsound for the following reasons. First, in general, increasing the titer tends to increase the coarseness and stiffness of the yarn, *i.e.*, the lower the titer, the finer and more flexible the fabric. There would have been no motivation to increase the stiffness and therefore reduce the fineness of the fabrics of Draxö or Edlund since the references are concerned with decorative fabrics which are flexible and have a decorative appeal to consumers. Second, in rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. Since the Examiner has not established a *prima facie* case of obviousness for reasons presented above, Applicant does not have to provide evidence of unexpected results.

As noted in MPEP §2144.05, Section II.B., a particular parameter must first be recognized as a result-effective variable, *i.e.*, a variable which achieves a recognized result, before the determination of the optimum or workable ranges of said variable might be characterized as routine experimentation. *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). While titer might be a result-effective variable to achieve desired appearance of the fabric (*i.e.*, depth of pile or degree of loft of the loops) in Stumpf, there is no recognition in the applied references of varying the titer to provide a patterned glass fiber textile that can be successfully *woven*, for example, using a Jacquard loom.

The motivation to modify the relied on prior art must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention. *In re Napier*, 55 F.2d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995). Obviousness cannot be established by modifying the teachings of the prior art to produce the

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claimed invention, absent some teaching, suggestion or incentive supporting the modification. *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

While the Examiner has asserted that

it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the titer of the warp fiber [of Draxö or Edlund], such as from between 270 to 300 tex, because it is understood by one of ordinary skill in the art that the titer determines properties such as depth of pile, degree of loft of the loops, and appearance of the fabric,

(final Office Action at page 3), the Examiner has failed to identify where in the prior art one of ordinary skill would have found a disclosure or suggestion which would have led him to make the proposed modification. *See In re Kotzab*, 27 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (wherein the court stated that particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected the components for combination in the manner claimed). The absence of such particular findings in support of the rejection of claims 1-10 renders the rejection improper.

An adequate showing of motivation to combine requires evidence that a person of ordinary skill in the art would, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *Ecolochem Inc. v Southern Calif. Edison Co.*, 227 F.3d 1361, 1375, 56 USPQ2d 1065, 1075 (Fed. Cir. 2000), quoting *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1456 (Fed. Cir. 1998). In the present case, it has not be shown that the skilled artisan confronted with the problem of providing a process for preparing *woven*, patterned glass fiber textiles which are aesthetically pleasing would have selected the features from Stumpf and combined them with Draxö or Edlund absent knowledge of the claimed invention. Because the only reason or suggestion to modify the teachings of Draxö or Edlund comes from Applicant(s) disclosure, the rejection is improper and should be reversed.

For at least the above reasons, Appellant believes the rejection based on Draxö or Edlund in view of Stumpf is unsound and should be reversed. No *prima facie* case of obviousness has been established.



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B. The Rejection of Claim 8 Under 35 U.S.C. § 103(a) as Unpatentable over Draxö or Edlund in View of Stumpf, and Further in View of Moll

The combined disclosures of Draxö, Edlund and Stumpf fail to disclose or suggest the presently claimed textile for reasons discussed above. The fabric disclosed in Moll likewise is significantly different from that of the present invention. Accordingly, the combination of all four references fails to render obvious the textile fabric of claim 8, which specifies that the warp density of the textile fabric is in the range of from about 6 to 10 threads/cm.

As noted in MPEP § 2145, it is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983).

Moll clearly teaches away from exceeding the upper limit of 150 tex ( $\pm$  less than 10%) and discloses that that patterned glass fabrics "can be produced after all *by adhering to the above-addressed limiting values*". (Emphasis Added; Column 1, Lines 44-49). Thus, the proposed combination of Moll with Draxö or Edlund in view of Stumpf is improper, as Moll teaches away from exceeding the upper limit of 150 tex, while Draxö or Edlund in view of Stumpf is cited as teaching a titer of from 270 to 300 tex as the warp.

For at least the above reasons, Appellant believes the rejection based on Draxö or Edlund in view of Stumpf, and further in view of Moll, is unsound and should be reversed.

C. The Rejection of Claims 1-7, 9, and 10 Under 35 U.S.C. § 103(a) as Unpatentable over Draxö or Edlund in View of Kölzer

Neither Draxö nor Edlund discloses or suggests patterned woven glass fabrics having a warp yarn with a titer of 270 to 300 tex. It is clear that the woven patterned textile fabric wallcoverings prepared in Draxö and Edlund are completely different from the woven glass fabric reinforcement disclosed in Kölzer, which is relied on for a disclosure of a woven fabric having a warp yarn of 34 to 1000 tex, specifically 272 tex. Given the significant differences between the fabrics disclosed in the primary references and that disclosed in Kölzer, those of ordinary skill would not have been motivated to substantially increase the titer of the warp yarns of the textiles of Draxö and Edlund nor would there have been a reasonable expectation that the modification would have been successful, *i.e.*, improve the properties desired by the patentees.

Kölzer is directed to the preparation of reinforced plastics containing a woven fabric as reinforcement, the fabric having expandable microspheres dispersed within the thread

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system of the fabric. When the microspheres are expanded by heating, the weft threads (covered) shrink slightly while the warp (covering) threads shrink substantially.

In the Advisory Action, the Examiner asserts that Kölzer is in the field of applicant's endeavor, which is impregnated woven glass fabrics. Applicants respectfully submit that Kölzer is neither in the field of Applicants' endeavor nor reasonably pertinent to the particular problem with which the inventor was concerned, which is *woven*, patterned glass fiber textiles which are aesthetically pleasing. Thus, Kölzer may not be relied on as a basis for rejection of Applicants' invention.

The woven reinforcement fabrics used in Kölzer are not decorative wallcoverings as in Draxö and Edlund. In view of the significant differences between the decorative textiles of Draxö and Edlund and the reinforcement fabric of Kölzer, there would have been no motivation to significantly increase the titer of the warp yarn of the woven textiles of Draxö and Edlund. Nor could one reasonably expect that such a modification would have been successful given the wide disparities in the properties of the respective fabrics.

Since Kölzer is directed to fiber reinforcement of plastics, the desirable characteristics of decorative textiles (*e.g.*, patterns which appeal to consumers, flexibility, fineness, appearance, etc.) are not a consideration. A high titer may provide increased strength which is a desirable characteristic for reinforcement, but not necessarily a desirable characteristic for decorative woven fabrics.

As noted above, a showing of unexpected results is not required when the rejection does not establish a *prima facie* case of obviousness.

Further, while the Examiner has asserted that

it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the titer of the warp fiber [of Draxö or Edlund], such as from between 270 to 1000 tex, because it is understood by one of ordinary skill in the art that the titer determines the strength of the fabric,

(final Office Action at page 5), the Examiner's failure to identify where in the prior art one of ordinary skill would have found a disclosure or suggestion which would have led him to make the proposed modification renders the rejection improper.

It has not be shown that the skilled artisan confronted with the problem of providing a process for preparing *woven*, patterned glass fiber textiles which are aesthetically pleasing would have selected the features from Kölzer and combined them with Draxö or Edlund

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absent knowledge of the claimed invention. Because the only reason or suggestion to modify the teachings of Draxö or Edlund comes from Applicant(s) disclosure, the rejection is improper and should be reversed.

For at least the above reasons, Appellant believes the rejection based on Draxö or Edlund in view of Kölzer is unsound and should be reversed.

D. The Rejection of Claim 8 Under 35 U.S.C. § 103(a) as Unpatentable over Draxö or Edlund in View of Kölzer, and Further in View of Moll

The combined disclosures of Draxö, Edlund and Kölzer fail to disclose or suggest the presently claimed textile for reasons discussed above. The fabric disclosed in Moll likewise is significantly different from that of the present invention. Accordingly, the combination of all four references fails to render obvious the textile fabric of claim 8, which specifies that the warp density of the textile fabric is in the range of from about 6 to 10 threads/cm.

As noted above, Moll clearly teaches away from exceeding the upper limit of 150 tex ( $\pm$  less than 10%) and discloses that that patterned glass fabrics "can be produced after all *by adhering to the above-addressed limiting values*". (Emphasis Added; Column 1, Lines 44-49). Thus, the proposed combination of Moll with Draxö or Edlund in view of Stumpf is improper, as Moll teaches away from exceeding the upper limit of 150 tex, while Draxö or Edlund in view of Stumpf is cited as teaching a titer of from 270 to 300 tex as the warp.

For at least the above reasons, Appellant believes the rejection based on Draxö or Edlund in view of Kölzer, and further in view of Moll, is unsound and should be reversed.

VIII. Claims Appendix

See attached Claims Appendix for a copy of the claims involved in the appeal.

IX. Evidence Appendix

See attached Evidence Appendix for copies of evidence relied upon by Appellant.

X. Related Proceedings Appendix

See attached Related Proceedings Appendix for copies of decisions identified in Section II., *supra*.

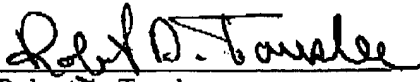
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Respectfully submitted,

JOHNS MANVILLE

Date December 28, 2006

By:



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## VIII. CLAIMS APPENDIX

### The Appealed Claims

1. A woven, patterned glass fiber textile fabric comprised of a glass fiber yarn with a titer of from 270 to 300 tex as the warp, and a glass fiber yarn having a titer ranging from 68 to 660 tex as the weft.
2. The glass textile fabric of claim 1, wherein the titer of the warp yarn is in the range of from about 270 to 290 tex.
3. The glass textile fabric of claim 1, wherein the titer of the warp yarn is about 278 tex.
4. The glass textile fabric of claim 1, wherein the titer of the weft yarn is in the range of from 190 to 350 tex.
5. The glass textile fabric of claim 1, wherein the titer of the weft yarn is about 200 tex.
6. The glass textile fabric of claim 1, wherein the titer of the weft yarn is about 330 tex.
7. The glass textile fabric of claim 1, wherein the warp density of the textile fabric ranges from 2.5 to 20 threads/cm.
8. The glass textile fabric of claim 7, wherein the warp density of the textile fabric is in the range of from about 6 to 10 threads/cm.
9. The glass textile fabric of claim 1, wherein the weft yarn density of the textile fabric is in the range of from about 2.0 to 12 threads/cm.
10. The glass textile fabric of claim 1, wherein the textile is impregnated with a chemical formulation comprised of a starch binder and a polymeric binder.

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**IX. EVIDENCE APPENDIX**

NONE

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**X. RELATED PROCEEDINGS APPENDIX**

NONE

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